# OCR Computer Science A Level
# 1.4.1 Data Types

## Flashcards

What data type should be used for storing a phone number like **07886756443**?

# What data type should be used for storing a phone number like 07886756443?

## String

Numeric types would omit the leading 0.

Perform an AND mask on the binary numbers:

10101101
01011011

# Perform an AND mask on the binary numbers

## 00001001

Which data type stores a collection of characters?

# Which data type stores a collection of characters?

String

Add the two binary numbers:

01011011
00111010

Give your answer in decimal

Add the two binary numbers 01011011 and 00111010, giving your answer in decimal

149

```
    0  1  0  1  1  0  1  1
+   0  0  1  1  1  0  1  0
─────────────────────────
    1  0  0  1  0  1  0  1
```

What is the decimal 45 in binary?

Give your answer as a byte

# What is the decimal 45 in binary?

`00101101`

# What is the hexadecimal 2E in decimal?

What is the hexadecimal 2E in decimal?

$$(2 \times 16) + (14 \times 1) = \mathbf{46}$$

What is the hexadecimal 45 in binary?

Give your answer as a byte

What is the hexadecimal 45 in binary?

01000101

Which data type stores just `True` and `False`?

Which data type stores just `True` and `False`?

Boolean

What is -5 in sign magnitude binary?

Give your answer as a nybble

# What is -5 in sign magnitude binary?

1101

What does the binary `01101100` represent in hexadecimal?

What does the binary `01101100` represent in hexadecimal?

6C

What is the effect of a logical shift left by one place?

# What is the effect of a logical shift left by one place?

The value is doubled

What is the two's complement binary 10101101 in decimal?

What is the two's complement binary `10101101` in decimal?

-83

The binary `001101000110` is a floating point number with a single-bit sign, 8-bit mantissa and 4-bit exponent.

What is the number in decimal?

# What is the number in decimal?

52

Perform a logical shift right by two places on the binary number `01101010` and convert your result to decimal.

Perform a logical shift right by two places on the binary number 01101010 and convert your result to decimal.

26.5

Perform an XOR mask on the binary numbers:

01010101
10111011

# Perform an XOR mask on the binary numbers

11101110

# Which of the following is not a character?

**A:** 8      **C:** %

**B:** R      **D:** 43

# Which is not a character?

D

The binary `110011000011` is a floating point number with a single-bit sign, 8-bit mantissa and 4-bit exponent.

What is the number in decimal?

What is the number in decimal?

-9.5